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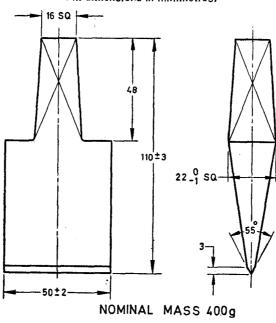


Indian Standard

SPECIFICATION FOR SMITH'S ANVIL CUTTERS

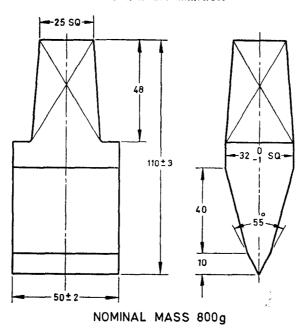
- 1. Scope Covers the requirements for flat and round smith's anvil cutters.
- 2. Dimensions
- 2.1 Flat Anvil Cutters (Type A)

All dimensions in millimetres,



2.2 Flat Anvil Cutters (Type B)

All dimensions in millimetres.



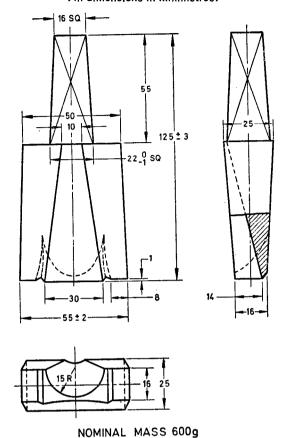
Adopted 30 October 1973

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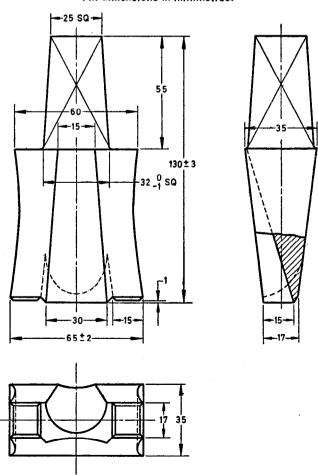
2.3 Half Round Anvil Cutters (Type C)

All dimensions in millimetres.



2.4 Half Round Anvil Cutters (Type D)

All dimensions in millimetres.



- 2.5 The tolerance on the untoleranced dimensions shall be in accordance with the usual manufacturing practice. The tolerances on the weight shall be $\frac{+5}{0}$ percent.
- 3. Material Suitable steels meeting with the requirements laid down in 4 and 6.

Examples:

- T65 and T75 of IS: 1570-1961 'Schedules for wrought steels for general engineering purposes' with a maximum sulphur and phosphorus content of 0.05 percent each.
- **4. Hardness** The smith's anvil cutters shall have hardness of 550 to 650 HV [see IS: 1501-1968 Method for Vickers hardness test for steel (first revision)] up to 20 mm from the cutting edge. Thereafter, the hardness shall gradually decrease to 250 to 350 HV at the shank.
- 5. Manufacture, Workmanship and Finish The smith's anvil cutters shall be free from cracks, pits, flaws, seams, burrs and other defects. All sharp corners except the cutting edge shall be suitably rounded. The working faces shall be ground and polished to a bright finish.

6. Tests

- **6.1** A mild steel bar of 25 mm diameter shall be kept over the cutter after fitting the cutter in an anvil and the bar given 10 full blows by means of double face sledge hammer of 3 kg, with a minimum swing of 250 mm. Cutters shall not show any signs of damage or deformation of the cutting edge on completion of the test.
- **6.2** Flaw Test The cutters, when laid on a mild steel or lead block and struck 10 blows with engineers' ball pain hammer of 500 g, shall show no sign of cracking, fracture or distortion on completion of the test.
- 7. Preservation and Packing The smith's anvil cutters shall be packed in accordance with the best prevalent trade practice, after giving a rust protection coating.
- 8. Sampling Unless otherwise agreed to between the supplier and the purchaser, the procedure given in IS: 2500 (Part I)-1963 'Sampling inspection tables: Part I Inspection by attributes and by count of defects' shall be followed. The sampling plan for various characteristics shall be as given in 8.1 and 8.2.
- 8.1 For examining dimensions, manufacture, workmanship and finish, the sampling plans with inspection level III and acceptable quality level (AQL) 2.5 percent given in Tables 1 and 2 of IS: 2500 (Part I)-1963 shall be followed.
- **8.2** For hardness and tests, the sampling plans with inspection level I and acceptable quality level (AQL) 2.5 percent given in Tables 1 and 2 of IS: 2500 (Part I)-1963 shall be followed.
- 9. Marking The smith's anvil cutter shall be marked with the nominal mass and the manufacturer's name, initials or recognized trade-mark.
- 9.1 ISI Certification Marking Details available with the Indian Standards Institution, New Delhi 110001.

EXPLANATORY NOTE

While preparing this standard, assistance has been derived from the specification IND/GS/1245(b) 'Cutters anvil' issued by the Chief Inspectorate of General Stores, Kanpur.